

APPENDIX 5A: OUTLINE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

South Humber Bank Energy Centre Project

Planning Inspectorate Reference: EN010107

South Marsh Road, Stallingborough, DN41 8BZ

The South Humber Bank Energy Centre Order

**Document Ref: 6.4 Environmental Statement – Volume III Appendix 5A: Outline
Construction Environmental Management Plan (CEMP)**

**The Infrastructure Planning (Environmental Impact Assessment) Regulations
2017 (as amended)**

**The Infrastructure Planning (Applications: Prescribed Forms and Procedure)
Regulations 2009 - Regulation 5(2)(a)**



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CONTENTS

1.0	OUTLINE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN	1
2.0	IMPLEMENTATION AND OPERATION.....	5
3.0	MANAGEMENT AND MITIGATION PLAN	7

TABLES

TABLE 3.1: AIR QUALITY.....	7
TABLE 3.2: NOISE AND VIBRATION	9
TABLE 3.3: TRAFFIC AND TRANSPORT	11
TABLE 3.4: ECOLOGY.....	13
TABLE 3.5: LANDSCAPE AND VISUAL AMENITY	19
TABLE 3.6: GEOLOGY, HYDROGEOLOGY AND LAND CONTAMINATION.....	21
TABLE 3.7: CULTURAL HERITAGE.....	24
TABLE 3.8: WATER RESOURCES, FLOOD RISK AND DRAINAGE	25
TABLE 3.9: SOCIO-ECONOMICS.....	31
TABLE 3.10: WASTE MANAGEMENT	32
TABLE 3.11: HUMAN HEALTH.....	35
TABLE 3.12: SUSTAINABILITY AND CLIMATE CHANGE.....	35

1.0 OUTLINE CONSTRUCTION ENVIRONMENTAL MANAGEMENT PLAN

1.1 Introduction

1.1.1 This document presents an outline for the detailed Construction Environmental Management Plan (CEMP). The CEMP will be produced for the Proposed Development following the appointment of the principal contractor to construct the Proposed Development (the Principal Contractor).

1.1.2 Potential impacts are being identified through the Environmental Impact Assessment (EIA) process and are reported in the Environmental Statement (ES) Volume I (Document Ref. 6.2). A range of 'standard' or best practice mitigation and construction management measures are being accounted for in the EIA and it is assumed these will be implemented during construction of the Proposed Development. This outline CEMP demonstrates how these commitments will be implemented. It also sets out the monitoring and auditing activities designed to demonstrate that such mitigation measures are carried out and that they are effective.

1.2 Objectives of the Construction Environmental Management Plan

1.2.1 The overall objectives of the CEMP are as follows:

- to minimise the risk of any type of pollution incident or other form of unauthorised discharge;
- to minimise any nuisance to sensitive receptors;
- to maintain communication between the Client (Employer), the Project Manager and relevant third parties, with assignment of any specific and statutory reporting duties to third parties, where these are to remain their statutory duty; and
- to be compliant with legislation and contract specifications.

1.3 Purpose of the Outline Construction Environmental Management Plan

1.3.1 This document provides the likely structure of the CEMP, and indicates what additional information might be included under each sub-section within the CEMP, which will be produced by the contractor selected to construct the Proposed Development.

1.3.2 This outline CEMP covers the principal construction activities envisaged at the time of writing of the ES. The CEMP will be produced in line with this outline document and will be agreed with North East Lincolnshire Council (NELC) in advance of enabling works commencing on Site, through discharge of a Development Consent Order requirement. The key elements of the CEMP will include:

- an overview of the Proposed Development and associated construction programme;
- prior assessment of environmental impacts (through the EIA);

- reduction of potential adverse impacts through design and other mitigation measures;
- monitoring of effectiveness of mitigation measures;
- corrective action procedure; and
- links to other complementary plans and procedures.

1.3.3 In summary, the CEMP will identify how commitments made in the ES will be translated into actions on Site, including details such as the allocation of key roles and responsibilities.

1.3.4 The Principal Contractor appointed by the Applicant to construct the Proposed Development will be responsible for working in accordance with and regularly updating the environmental controls documented in the outline and CEMP. However, the overall responsibility for implementation of the CEMP will lie with the Applicant. It should be noted that the Applicant's parent company, EP UK Investments Ltd, are the owner of the existing operator of South Humber Bank Power Station, on part of the Site, and therefore possess knowledge of current Site conditions.

1.3.5 The CEMP will be designed with the objective of compliance with the relevant environmental legislation and the mitigation measures that will be set out within the ES. It should be read alongside any other environmental documents related to the construction phase, including the Construction Worker Travel Plan, the Construction Traffic Management Plan and Materials Management Plan.

1.3.6 Any additional construction licences, permits or approvals that are required will be listed in the CEMP, including any environmental information submitted in respect of them.

1.4 Construction

Programme

Scenario 1

1.4.1 The most likely construction programme is currently anticipated to be the construction of the Consented Development pursuant to the Planning Permission (and its Framework CEMP) starting in Quarter 2 (Q2) 2020 and taking approximately three years to complete, with the additional aspects of the Proposed Development being constructed approximately half way through the construction period for the Consented Development, subject to the granting of a Development Consent Order (DCO) (potentially beginning in Q3 2021) (pursuant to this Outline CEMP).

1.4.2 In this scenario (Scenario 1), the Applicant would continue to obtain any necessary approvals for the Consented Development pursuant to conditions attached to the Planning Permission. The submission of information to discharge planning conditions attached to the Consented Development has already begun and it is anticipated that applications to discharge conditions regarding the approval of detailed design for the Consented Development will be submitted during Q2 2020.

Scenarios 2 and 3

- 1.4.3 The other potential construction programme scenarios that are being considered for the purposes of the EIA in order to present a robust assessment of potential impacts are:
- Scenario 2: construction of the Proposed Development in a single circa three year construction phase commencing shortly after the DCO is granted (expected in Q3 2021) (with no construction of the Consented Development pursuant to the Planning Permission); or
 - Scenario 3: construction of the Proposed Development in a single circa three-year construction phase commencing up to five years after the DCO is granted, in Q3 2026 (again, with no construction of the Consented Development pursuant to the Planning Permission).

Working Hours

- 1.4.4 Construction working hours are expected to be 07:00 to 19:00 Monday to Saturday. However it is likely that some construction activities will be required outside these times. This includes any concrete slip-forming activities e.g. for the fuel bunker, which will need to be carried out continuously, and works inside buildings.
- 1.4.5 Where any on Site works are to be conducted outside the core working hours, they will comply with the restrictions stated in this outline CEMP and any other restrictions within the DCO, in particular regarding the control of noise and traffic. Construction noise limits have been identified for nearby noise sensitive receptors during daytime, evening and night-time periods. Compliance with these noise limits will ensure adverse effects are unlikely.

Parking Provisions and Off Site Facilities

- 1.4.6 The location and size of parking provisions on Site, access/ egress routes/ gates, loading and unloading areas for plant and materials, storage areas, wheel washing facilities and construction traffic management measures will be set out in the CEMP. The CEMP will also include a description of any laydown or contractor accommodation areas.

Traffic Routeing

- 1.4.7 The CEMP will provide details of the designated routes for HGV movements, with reference to a Construction Traffic Management Plan, and measures to control worker car movements, with reference to a Construction Worker Travel Plan.

Recycling and Disposing of Waste

- 1.4.8 Contractors will be required to adopt good practice in construction waste management which will reduce the quantity of waste generated.
- 1.4.9 In order to control the waste generated on Site during site preparation and construction, the Principal Contractor will separate the main waste streams on Site, prior to them being taken to a waste facility for recycling or disposal.

1.4.10 All waste to be removed from Site will be undertaken by registered waste carriers and taken to permitted waste facilities.

Best Practice Measures

1.4.11 The Considerate Constructors Scheme (CCS) will be adopted to assist in reducing pollution and nuisance from the Proposed Development, by employing best practice measures which go beyond statutory compliance.

1.5 Complementary Plans and Procedures

1.5.1 In addition to the CEMP, complementary environmental plans and procedures for the construction phase of the Proposed Development will be developed where these are required in the DCO. These plans and procedures will build on the principles and procedures set out in this outline CEMP and will be cross referenced in the CEMP.

2.0 IMPLEMENTATION AND OPERATION

2.1.1 The CEMP will include an organogram showing team roles, names and responsibilities, training requirements, communication methods, document control and environmental emergency procedures.

2.2 Role and Responsibilities

2.2.1 The project team roles and responsibilities would also be detailed for each role. A date and signature would be needed to ensure acceptance of responsibility.

2.2.2 All operatives involved in the construction phase of the Proposed Development, will be made aware of the CEMP and the need to implement it prior to them starting work on Site. The Principal Contractor's Site Manager will manage the implementation of the CEMP and its content will be communicated to all operatives during the induction and regular toolbox talks by the Site management team.

2.3 Legal Compliance

2.3.1 All relevant regulations relating to environmental issues will be adhered to during the construction phase of the Proposed Development. In addition to such legislation, there is a range of 'Good Practice' guidance widely accepted by the construction industry that details practical advice on how construction sites should be managed to protect the surrounding environment.

2.3.2 The following overarching legislation must be adhered to during the construction phase of the Proposed Development:

- Environment Act 1995; and
- Environmental Protection Act 1990.

2.3.3 The ES (Volume I) (Document Ref. 6.2) identifies the legislation and guidance that is relevant to each discipline. A full list of relevant legislation will be included in the CEMP.

2.4 Reviewing CEMP Compliance

Non-compliance and Corrective Actions

2.4.1 Non-compliances and corrective actions will typically be identified through the monitoring and measuring process and through incidents occurring during on Site activities. Non-compliances will use the standard ratings methodology of 'Major', 'Minor' and 'Observation' and will be included within the environmental reporting. Non-compliances will have an associated corrective action/recommendation and a timeframe for closure.

Records and Documents

2.4.2 General document and record control will be undertaken in accordance with EP Waste Management Ltd procedures. This will include:

- project document control procedures;
- risk assessments;
- auditing compliance; and

- project management compliance.

2.4.3 All applicable consents, permits, permissions, licences and environmental surveys required and acquired prior to construction will be transposed into the CEMP for reference and where applicable legal compliance.

2.4.4 On completion of the contract, final versions of all relevant documents relating to the construction phase of the Proposed Development, including risk assessments, Environmental Management Plans and all documents that record environmental risks and mitigation measures will be submitted to relevant personnel.

2.5 Monitoring, Auditing and Reporting

2.5.1 Monitoring is a vital process in ensuring the effectiveness of the CEMP, with any non-conformity against the CEMP and deficiencies in the CEMP being identified, investigated and remedied.

2.5.2 Should any deficiencies in the CEMP be identified, the CEMP will be updated to ensure the document continues to fulfil its objectives.

2.5.3 To ensure the CEMP remains up-to-date and relevant it will be updated where necessary via addenda by the Principal Contractor every six months during the construction process of the Proposed Development to incorporate changes in legislation, standards, plant, processes, etc.

2.5.4 Regular environmental audits of the construction works associated with the Proposed Development will be undertaken by the Principal Contractor, or by an external consultant appointed by the Principal Contractor, to ensure compliance with the CEMP. All audits will be documented in an audit report, a copy of which will be provided to EP Waste Management Ltd and retained on Site for inspection.

2.5.5 A non-conformance report will identify the non-conformance with the CEMP and the required corrective action.

2.5.6 Subsequent audits will be used to monitor the performance of the corrective action and then sign off the corrective action request once it has been successfully implemented. All completed non-conformance reports will be held on Site in a designated file.

2.6 Management Review

2.6.1 The CEMP will be signed off on completion of the construction of the Proposed Development and will form the basis of the handover environmental management plan (HEMP).

3.0 MANAGEMENT AND MITIGATION PLAN

3.1.1 This section of the outline CEMP sets out the mitigation and management measures to be included as a minimum in the CEMP. It also illustrates how the monitoring strategy will be set out and the responsible party identified for each mitigation/ enhancement measure or monitoring requirement.

Table 3.1: Air Quality

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>Increased NO_x and PM₁₀ from construction vehicle/plant emissions.</p> <p>Increased particulates and deposited dust from soil and spoil movements and handling.</p>	<p>Appropriate standards and Best Practicable Means will be included in the CEMP, which may include:</p> <ul style="list-style-type: none"> • application of good practice dust management techniques; • storing sand and aggregates in bunded areas and storage of cement powder and fine materials in silos; • using water suppression and regular cleaning to minimise dust formation and mud on roads; • covering of vehicles leaving the construction site that are carrying construction waste or spoil; • employing wheel wash systems at Site exits; • restricting the use of unmade roads where practicable; and • minimising storage duration of top soil or 	<p>To be confirmed in the CEMP.</p>	<p>To be confirmed in the CEMP.</p>

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>spoil during construction; and</p> <ul style="list-style-type: none"> • prohibiting open fires on Site; • <p>Best Practicable Means will also be employed for the siting and operation of non-road mobile machinery, to control associated emissions, including:</p> <ul style="list-style-type: none"> • minimising vehicle and plant idling; and • locating static plant away from sensitive receptors where possible. 		

Table 3.2: Noise and Vibration

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>Noise effect due to construction activities at nearby noise sensitive receptors, including evening and night time periods.</p> <p>Construction traffic noise.</p> <p>Vibration due to construction activities.</p>	<p>Any work undertaken outside normal construction working hours (Monday to Saturday 07:00 to 19:00) will be within the noise threshold values (see Table 8.5 in Chapter 8: Noise and Vibration, ES Volume I, Document Ref. 6.2).</p> <p>Best Practicable Means will be used to minimise the noise impacts on surrounding sensitive receptors, and may include the following:</p> <ul style="list-style-type: none"> • all construction plant and equipment will comply with EU noise emission limits; • proper use of plant with respect to minimising noise emissions – all vehicles and mechanical plant will be fitted with effective exhaust silencers and maintained in good efficient working order; • selection of inherently quiet plant where appropriate – for example and where practicable major compressors will be ‘sound reduced’ models fitted with properly lined and sealed acoustic covers which will be kept closed whenever the machines are in use, and ancillary pneumatic percussive tools fitted with mufflers or silencers of the type recommended by the manufacturers; 	<p>To be confirmed in the CEMP.</p>	<p>To be confirmed in the CEMP.</p>

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<ul style="list-style-type: none"> • machines in intermittent use will be shut down in the intervening periods between work or throttled down to a minimum; • materials should be handled with care and be placed, not dropped. Materials should be delivered during standard working hours where possible; • all ancillary plant such as generators, compressors and pumps will be positioned so as to cause minimum noise disturbance, i.e. furthest from receptors or behind close boarded noise barriers; if necessary, acoustic enclosures will be provided and/ or acoustic shielding; and • construction contractors will be obliged to adhere to the codes of practice for construction working and piling given in British Standard 5228 and the guidance given therein minimising noise emissions from the Site. <p><u>Piling</u></p> <p>Piling methods and/ or piling working hours will be selected to prevent significant noise effects on adjacent waterbird habitat during the winter months (September to March inclusive).</p>		

Table 3.3: Traffic and Transport

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>Increased traffic flows, including HGVs on the roads leading to the Site</p>	<p>Construction HGVs will be required to arrive and depart the Site towards the A180 via Hobson Way, Kiln Lane and the A1173.</p> <p>Access for third parties will be maintained along South Marsh Road throughout the construction period.</p> <p>Implementation of a Construction Worker Travel Plan (CWTP) aimed at identifying measures and establishing procedures to encourage workers to ensure that vehicle occupancy rates used in the Transport Assessment as a basis for analysis are achieved (a Framework CWTP is provided in Annex 26 of the TA presented within Appendix 9A ES Volume III (Document Ref. 6.4)).</p> <p>The Construction Traffic Management Plan (CTMP) could include the following measures:</p> <ul style="list-style-type: none"> • HGV routing plan communicated to all drivers during their induction; • local road signage for construction traffic; • limiting construction delivery hours to 07:00 – 19:00 Monday – Saturday where possible; • management of abnormal load deliveries; • 24 hour contact name and number for 	<p>To be confirmed in the CEMP.</p>	<p>To be confirmed in the CEMP.</p>

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>members of the public should there be any issues relating to construction traffic;</p> <ul style="list-style-type: none"> • consultation with AIL Officers at Highways England and NELC at the earliest opportunity on the programme and plan for delivery of AILs; and • make the public aware of when AIL deliveries are taking place via social media, local radio and the local press. <p>The Principal Contractor will work with the relevant authorities and stakeholders to secure appropriate approvals for the transportation of abnormal loads on the strategic and local road network. Specific mitigation measures that would be investigated to deliver abnormal loads to the Site could include the temporary removal of street furniture (i.e. pedestrian islands, signage) and avoiding peak traffic periods for the delivery of abnormal loads.</p>		

Table 3.4: Ecology

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>Potential for obtrusive glare, upward light spill and light trespass to impact on ecology.</p> <p>Potential for visual disturbance of waterbirds on adjacent field to the south.</p> <p>Potential for disturbance of water vole using perimeter ditches within the Site.</p> <p>Potential for spillages to enter watercourses and impact ecology.</p> <p>Potential for noise and vibration disturbance of waterbirds on adjacent fields during the winter months due to drop hammer piling.</p>	<p><u>Impact Avoidance</u></p> <p>Compliance with the measures set out in the Biodiversity Protection Plan (see Biodiversity Strategy, Document Ref. 5.11) and measures to avoid impacts on Humber Estuary SPA/ Ramsar site waterbirds during piling as set out within the Biodiversity Strategy.</p> <p>Compliance with the indicative construction lighting strategy set out in the Indicative Lighting Strategy (Document Ref. 5.12).</p> <p>A close board fence approximately 2.5 m in height will be installed along part of the southern boundary of the Site (see Figure 4.2 in ES Volume II, Document Ref. 6.3) to provide visual screening during construction (and subsequent operation).</p> <p>A minimum 5 m buffer zone along the banks of all perimeter ditches will be fenced to prevent accidental damage during construction.</p> <p>Compliance with industry good practice and environmental protection legislation e.g. prevention of surface and ground water pollution, fugitive dust management, noise prevention or amelioration.</p> <p>To ensure legislative compliance in relation to</p>	<p>To be confirmed in the CEMP.</p>	<p>To be confirmed in the CEMP.</p>

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>nesting birds, all clearance of suitable vegetation during site preparation would be undertaken outside the breeding season (typically March-August inclusive for most species), where possible. In situations where this is not possible, an ecologist would check the working area for nests before works commence. If nests were discovered, appropriate mitigation would be implemented to ensure that they are not disturbed or destroyed before any works can commence in that area. This would include imposing exclusion zones between the works and nest(s) and suspending vegetation clearance works within the area until any young had fledged.</p> <p>To prevent trapping of wildlife in construction excavations and ensure compliance to animal welfare legislation, any excavations deeper than 1 m will be covered overnight, or where not possible, a means of escape will be fitted (e.g. battered soil slope or scaffold plank); to allow animals (e.g. otter) to vacate excavations should they fall in.</p> <p>An ecological watching brief will be carried out during ground clearance of the Main Development Area at the start of the construction phase, including removal of the artificial hibernaculum (see Appendix 10C in ES Volume III), Target Note</p>		

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>5 on Figure 10C.4) and the two hay piles (Appendix 10C, Target Note 4 on Figure 10C.4) to prevent harm to reptiles and amphibians that may be present.</p> <p>Temporary construction lighting will be directed inwards towards the Site activity so as to minimise lights shining directly onto ecologically sensitive areas (e.g. wintering bird habitat).</p> <p>If the start of construction is delayed to one of the later programme scenarios (see Chapter 5: Construction Programme and Management in ES Volume I, Document Ref. 6.2) an update ecological walkover survey will be required to confirm there are no changes to baseline conditions, in particular with regard to mobile species such as [REDACTED].</p> <p><u>Piling</u></p> <p>As set out in Table 3.2 above, piling methods and/ or piling working hours will be selected to prevent significant noise effects on adjacent waterbird habitat during the winter months (September to March inclusive), such as using Continuous Flight Auger piling instead of drop hammer piling and/ or avoiding drop hammer piling two hours either side of high tide during the period September to March inclusive.</p>		

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p><u>Water Vole Protection</u></p> <p>Works to install the culvert on Ditch 3 for the new site access in the north-west of the Main Development Area will be undertaken under the supervision of an ecologist holding a Class Licence for water vole. This is due to the minor extent of the works (approximately 8 – 10 m) that does not trigger the requirement for a development licence from Natural England. A separate water vole mitigation strategy document will be prepared as part of the Class Licence process; however, the approach and timings are outlined below.</p> <p>The approach to mitigation will be as follows:</p> <ul style="list-style-type: none"> • ditch vegetation (within the channel and on the banks) will be strimmed back to ground level under the supervision of the Class Licensed ecologist to displace water voles from the affected section of habitat in the period 15th February to 15th April; • ditch vegetation will be kept strimmed short until works commence; • arisings will be removed; 		

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<ul style="list-style-type: none"> • prior to the commencement of works, the Class Licensed ecologist will inspect the working area to confirm that water voles were absent from any burrows present; • on confirmation of the absence of water voles, works to install the culvert will commence under the supervision of the Class Licensed ecologist; and • any amphibians (e.g. common toad) encountered during the works will be moved to a place of safety away from the working area (likely to be in close proximity to a nearby ditch) by the supervising ecologist. <p>This mitigation approach will also be sufficient to address the risk of accidental killing/ injury to water shrew (<i>Neomys fodiens</i>), which may be present in the perimeter ditches see Appendix 10E: Otter and Water Vole Survey Report in ES Volume III (Document Ref. 6.4).</p> <p><u>Grass Snake Protection</u></p> <p>Due to the potential for grass snake to occur on the banks of ditches, a precautionary approach to the clearance of vegetation will be undertaken (alongside the mitigation for water vole). The strimming of vegetation from the banks of Ditch 3</p>		

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>(along the northern perimeter of the Main Development Area) for water vole displacement will also be sufficient to displace grass snake.</p> <p><u>Breeding Bird Protection</u></p> <p>The removal of the marginal vegetation from the affected sections of ditch will be timed to ensure that there is no risk of breeding birds nesting in the vegetation prior to works commencing.</p> <p>Grassland and marginal ditch vegetation will be removed outside the breeding bird season wherever possible. If this is not possible and vegetation removal is required during the breeding bird season, then a pre-works check for nests will be undertaken and appropriate mitigation will be implemented to avoid disturbance.</p>		

Table 3.5: Landscape and Visual Amenity

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>Loss of existing landscape features and visibility of new landscape features (temporary and permanent) including:</p> <ul style="list-style-type: none"> • removal of habitats (e.g. grassland etc.) to allow for construction; • movement of plant and heavy goods vehicles, both on Site and in the surrounding area; • temporary stockpiling of earth and storage of materials on Site; • establishment of Site compounds 	<p>Lighting required during construction will be designed to reduce unnecessary light spill outside of the Proposed Development boundary (see the Indicative Lighting Strategy (Document Ref. 5.12)).</p> <p>The existing woodland plantations in the north-west, west and south-west of the Site will be retained and protected (see Indicative Landscape Strategy (Document Ref. 5.10) for information on tree protection and management).</p>	<p>To be confirmed in the CEMP.</p>	<p>To be confirmed in the CEMP.</p>

<p>resulting in temporary structures to serve the workforce;</p> <ul style="list-style-type: none">• introduction of stationary and moving piling rigs, cranes and other high level machinery to assist high level construction works;• building construction including the new stacks and large scale structures; and• external lighting to illuminate Site operations after dark.			
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Table 3.6: Geology, Hydrogeology and Land Contamination

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>Impacts from construction on the following</p> <ul style="list-style-type: none"> • soil resources; • construction workers; • controlled waters (surface water and ground water); • off Site human receptors. 	<p>A Materials Management Plan will be prepared as part of the CEMP. This will detail the procedures and measures that will be taken to classify, track, store, dispose of and possibly re-use all excavated materials that are expected to be encountered during the construction of the Proposed Development.</p> <p>Disposal of soil waste will be reduced by minimisation of the overall quantities of waste generated during construction and by ensuring that excavated material consigned to landfill cannot, as an alternative, be put to use either on Site or on other sites.</p> <p>Impacts on soil resources will be managed by minimising traffic movement over topsoil materials and soil stripping during inappropriate weather conditions, such that the soils are not wet. Once stripped, the soils shall be stored in soil bunds to an agreed height so that the weight of the material does not damage the structure of the soil. The topsoil shall be reused in areas of landscaping within the Site or off Site if it cannot be re-used on Site.</p> <p>The Principal Contractor will use Best Practical Means including:</p> <ul style="list-style-type: none"> • measures to minimise dust generation; • provision of personal protective equipment (PPE), 	<p>To be confirmed in CEMP.</p>	<p>To be confirmed in the CEMP.</p>

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>such as gloves, barrier cream, overalls etc. to minimise direct contact with soils;</p> <ul style="list-style-type: none"> • provision of adequate hygiene facilities and clean welfare facilities for all construction site workers; • monitoring of confined spaces for potential ground gas accumulations, restricting access to confined spaces i.e. by suitably trained personnel, and use of specialist PPE, where necessary; and • preparation and adoption of a Site and task specific health and safety plan. <p>Surface water run-off will be controlled using appropriate drainage measures and segregating uncontaminated surface water from any potentially polluted waters, as well as impermeable surfacing to minimise infiltration into the ground where necessary.</p> <p>If dewatering of excavations is required during the construction phase, a permit from the Environment Agency, to discharge to surface water or a consent to discharge to foul sewer may be required, arrangements may be required to store any waters collected during dewatering to determine whether contamination is present before deciding on where to discharge the waters. Dewatering of an excavation may be undertaken without a permit subject to complying with conditions set out in the Environment Agency Regulatory Position Statement 'Temporary</p>		

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>dewatering from excavations to surface water' (2018).</p> <p>A piling risk assessment will be undertaken in accordance with Environment Agency guidance.</p> <p>The prevention of pollution of surface water and/ or groundwater will comply with the requirements set out by the Environment Agency within guidelines published at www.gov.uk/guidance/pollution-prevention-for-businesses</p>		

Table 3.7: Cultural Heritage

POTENTIAL IMPACT	MITIGATION/ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>Impacts on the setting of cultural heritage assets (designated and non-designated heritage assets) from construction activities including:</p> <ul style="list-style-type: none"> • ground breaking; • moving machinery; • noise; • visual intrusion created by new buildings; and • construction traffic. <p>Potential for impact upon previously unknown buried heritage assets</p>	<p>No specific mitigation has been identified to be required as no significant effects have been identified. To be reviewed and updated throughout the construction phase and within the CEMP.</p>	<p>To be confirmed in the CEMP.</p>	<p>To be confirmed in the CEMP.</p>

Table 3.8: Water Resources, Flood Risk and Drainage

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>Potential change to the surrounding ditches (culverting/ extension to culverts/ installation of fencing).</p> <p>Pollution of surface watercourses within or near the Site during construction due to spillages or polluted surface water runoff entering the watercourse.</p> <p>Potential temporary changes to fluvial flood water flow routing within Flood Zone 3a during construction (although this is defended).</p> <p>Change to the impermeable area</p>	<p>Best practice will be implemented in accordance with relevant guidance including the Environment Agency Pollution Prevention for Businesses guidance.</p> <p>Construction personnel will be aware of potential impacts on water resources and procedures to be followed in the event of an accidental pollution event occurring. This will be included in the Site induction and training.</p> <p>Plans will be developed for drainage and pollution incident response, and agreed with the Environment Agency and North East Lincolnshire Internal Drainage Board. Any necessary equipment (e.g. spillage kits) will be held on Site and relevant staff will be trained in their use. The Environment Agency and NELC will be informed in the unlikely event of a suspected pollution incident.</p> <p>Measures to protect water resources from pollution will include:</p> <ul style="list-style-type: none"> • placing arisings and temporary stockpiles away from drainage systems, and directing surface water away from stockpiles to prevent erosion; • implementing containment measures including 	<p>To be confirmed in the CEMP.</p>	<p>To be confirmed in the CEMP.</p>

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>within the Site, and associated changes to surface water flows.</p>	<p>drip trays, bunding or double-skinned tanks of fuels and oils, storing all chemicals in accordance with their Control of Substances Hazardous to Health (COSHH) guidelines and providing spill kits in areas of fuel/ oil storage;</p> <ul style="list-style-type: none"> • keeping plant and machinery away from surface water bodies wherever possible and installing drip trays beneath oil tanks/ engines/ gearboxes and hydraulics, which are checked and emptied regularly; • locating refuelling and delivery areas away from surface water drains; and • protecting exposed ground and stockpiles as appropriate and practicable to prevent windblown migration of potential contaminants, and using water suppression if there is a risk of fugitive dust emissions. <p>Measures aimed at preventing an increase in flood risk during construction will include:</p> <ul style="list-style-type: none"> • storing topsoil and other construction materials where possible outside tidal Flood Zone 3; and • maintaining connectivity between the floodplain and the River Humber with no increases in ground level within the floodplain as far as 		

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>practicable.</p> <p>The Principal Contractor will produce a Flood Emergency Response Plan which will provide details of the response to an impending flood and include:</p> <ul style="list-style-type: none"> • a 24 hour availability and ability to mobilise staff in the event of a flood warning; • the removal of all plant, machinery and material capable of being mobilised in a flood for the duration of any holiday close down period; • details of the evacuation and Site closedown procedures; and • arrangements for removing any potentially hazardous material and anything capable of becoming entrained in floodwaters, from the temporary works areas. <p>A drainage strategy for construction will be incorporated into the CEMP. Discharge rates and volumes of surface water runoff from the Proposed Development will be restricted to the existing greenfield runoff rates.</p> <p>Discharge/ disposal of Site runoff/ material and/ or disposal of potentially contaminated water would be agreed in advance with the Environment</p>		

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>Agency, Anglian Water, NELC and North East Lindsey Internal Drainage Board where appropriate (and permits obtained as required). Such plans would include the following:</p> <ul style="list-style-type: none"> • all foul water from any Site compound (including temporary toilets) will be either tankered away to an appropriate disposal facility by a registered waste disposal contractor or treated within an on-site sewage treatment plant that discharges treated flows to one of the surface water drains on Site; • any potentially contaminated water will be tested, and if it is not of a suitable quality, agreed disposal procedures would be followed; • construction drainage details will be developed in consultation with the Environment Agency; • any waters removed from excavations by dewatering will be discharged appropriately, subject to the relevant licenses being obtained where necessary; • foundations and services will be designed and constructed to prevent the creation of pathways for the migration of contaminants and will be constructed of materials that are suitable for 		

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>the ground conditions and designed use; and</p> <ul style="list-style-type: none"> • no discharges from any self-contained wheel wash and localised wheel wash will be permitted into any surface water system. <p>Facilities will be provided during the construction phase of the Proposed Development, where necessary, to ensure controlled discharge of any surface water runoff that might occur. It will be a contractual requirement of the contractor to ensure that any runoff from the Site does not cause pollution or flooding.</p> <p>Measures to be considered on the finalisation of detailed design will include implementation of temporary drainage measures, that may include:</p> <ul style="list-style-type: none"> • installation of measures such as silt fences and appropriately sized settlement tanks/ ponds to reduce sediment load; • cut-off ditches or geotextile silt-fences, installed around excavations, exposed ground and stockpiles to prevent uncontrolled release of sediments from the Proposed Development; • regular cleaning of Site access points to prevent build-up of dust and mud; • installation of valves to isolate the settlement 		

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>tank/ ponds in the event of a polluted discharge;</p> <ul style="list-style-type: none"> • installation of oil interceptors (if required) to reduce the potential risk for contamination of groundwater and surface water; and • separate drainage for all potentially polluted waters (including washdown areas, stockpiles and other areas of risk for water pollution) which is to be tankered away from the Site. <p>If monitoring demonstrates unsatisfactory levels of solids or other pollutants, additional measures would be implemented (e.g. changes to Site drainage and settlement facilities and/ or use of flocculants) to control suspended solids or other polluted discharge to watercourses.</p>		

Table 3.9: Socio-Economics

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>Temporary increase in employment for construction workers</p> <p>Increase in local employment in the surrounding area arising from indirect and induced effects of construction activities</p> <p>Impacts on amenity and journey times for local residents during construction activities</p> <p>Impacts on amenity of local businesses during construction activities</p>	<p>A careers fair and 'meet the buyer' event will be held to promote opportunities for local residents and businesses.</p> <p>Construction traffic mitigation measures described in Table 3.3 above.</p>	<p>To be confirmed in the CEMP.</p>	<p>To be confirmed in the CEMP.</p>

Table 3.10: Waste Management

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
<p>Potential to impact on sensitive receptors (humans, wildlife and controlled waters) if not stored and managed appropriately</p>	<p>Waste arisings will be prevented and designed out where practicable through working with suppliers to minimise wastage in materials and packaging.</p> <p>Contractors will be required to adopt good practice in construction waste management which will reduce the quantity of waste generated. The following approaches will be implemented, where practicable, in order to minimise the quantities of waste requiring disposal. These may include:</p> <ul style="list-style-type: none"> • agreements with material suppliers to reduce the amount of packaging or to participate in a packaging take-back scheme; • implementation of a 'just-in-time' material delivery system to avoid materials being stockpiled, which increases the risk of their damage and disposal as waste; • attention to material quantity requirements to avoid over-ordering and generation of waste materials; • re-use of materials wherever feasible, e.g. re-use of excavated soil for landscaping. Concrete will be either taken off Site for crushing and re-use, or crushed and re-used 	<p>To be confirmed in the CEMP.</p>	<p>To be confirmed in the CEMP.</p>

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>on Site;</p> <ul style="list-style-type: none"> • segregation of waste at source where practical; and • re-use and recycling of materials off Site where re-use on Site is not practical (e.g. through use of an off Site waste segregation facility and re-sale for direct re-use or re-processing). <p>Where appropriate, the following waste management measures will be implemented in order to minimise the likelihood of any localised impacts of waste on the surrounding environment:</p> <ul style="list-style-type: none"> • damping down of surfaces during spells of dry weather and brushing/ water spraying of heavily used hard surfaces/ access points across the Site as required; • off Site prefabrication including the use of prefabricated structural elements, cladding units, toilets, mechanical and electrical risers and packaged plant rooms; • open burning of waste or unwanted materials will not be permitted on Site; • all hazardous materials including fuels, chemicals, cleaning agents, solvents and solvent containing products to be in sealed 		

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
	<p>containers at the end of each day in appropriately protected and bunded storage areas;</p> <ul style="list-style-type: none"> • any waste effluent will be tested and where necessary, disposed of at the correctly permitted facility by a registered specialist contractor(s); and • materials requiring removal from the Site will be transported using registered carriers and records will be kept detailing the types and quantities of waste moved, and the destinations of this waste, in accordance with the relevant regulations. <p>Prior to and during construction, the Principal Contractor will seek to identify beneficial uses for surplus excavated material either within the Site or on other sites, reducing the amount of excavated material being disposed of at landfill.</p>		

Table 3.11: Human Health

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
Potential electro magnetic effects on construction staff health	Implementation of measures to protect worked in accordance with the Control of electromagnetic Fields at Work Regulations 2016 and International Commission on Non-Ionising Radiation Protection Guidelines (1988) to reduce risks to 'as low as reasonably practicable' (ALARP).	To be confirmed in the CEMP.	To be confirmed in the CEMP.

Table 3.12: Sustainability and Climate Change

POTENTIAL IMPACT	MITIGATION/ ENHANCEMENT MEASURES	MONITORING REQUIREMENTS	RESPONSIBILITY
Greenhouse gas emissions during construction, including embodied carbon in building materials and transport of staff and materials	Implementation of measures to reduce construction waste and traffic movements as per Tables 3.3 and 3.10 above.	To be confirmed in the CEMP.	To be confirmed in the CEMP.